

**What is claimed is:**

1 A merchandise transaction method on on-line shopping in an on-line shopping system, comprising:

a first step in which an intermediary receives  
5 information about an electronic mall keeper to which  
a user desires transaction, information about  
commodities to be purchased by said user, and a  
packet and executes an order and payment of  
commodities to an electronic mall keeper in behalf of  
10 said user; and  
a second step in which said intermediary receives a  
secret decryption key for said packet transmitted  
from said user in exchange of said commodities and  
then obtains a credit card number of said user by  
15 deciphering the packet cipher.

2 A merchandise transaction method on on-line shopping in an on-line shopping system, comprising:

at a first transaction between a user which desires to  
20 purchase commodities and an intermediary, a first  
step in which an intermediary receives information  
about an electronic mall keeper to which said user  
desires transaction, information about commodities to  
be purchased by said user, and a packet and executes  
25 an order and payment of commodities to an electronic

mail keeper in behalf of said user;

a second step in which said intermediary receives a secret decryption key for said packet transmitted from said user in exchange of said commodities and

5 then obtains a credit card number of said user by deciphering the packet cipher;

a third step in which said intermediary records a credit card number of said user acquired through decryption of said packet;

10 at the second or later transaction between said user which desires to purchase commodities and said intermediary, a fourth step in which said intermediary receives information about an electronic mail keeper to which said user desires transaction and information about commodities to be purchased by

15 said user and then executes an order and payment of said commodities to an electronic mail keeper in behalf of said user; and

a fifth step in which said intermediary acquires a

20 credit card number of said user based on the record in said third step.

3 A merchandise transaction method in an on-line shopping system, comprising:

25 a user merchandise ordering step in which a user orders

commodities by transmitting information about a  
desired electronic mall keeper and information about  
commodities to be purchased to an intermediary;  
a packet transmission step in which said user transmits  
5 a packet regarding the merchandise order in the  
previous step to said intermediary;  
an intermediary merchandise ordering step in which said  
intermediary orders commodities by specifying itself  
as a merchandise shipping destination to said  
10 intermediary, based on the information  
received in the previous step;  
a credit card number notification step in which said  
intermediary notifies said electronic mall keeper of  
a credit card number of said intermediary;  
15 an electronic mall keeper merchandise shipping step in  
which said electronic mall keeper ships said  
commodities to said intermediary;  
an intermediary merchandise shipping step in which said  
intermediary ships said commodities to said user;  
20 a secret decryption key transmission step in which said  
user transmits a secret decryption key for said  
packet to said intermediary, in exchange of the  
commodities received in the previous step; and  
a cash and commission receiving step in which said  
intermediary acquires a credit card number by  
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deciphering the previously received packet cipher with the secret decryption key acquired in the precious step and then receives a cash and commission of the commodities with the credit card number.

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4 A merchandise transaction method on on-line shopping in an on-line shopping system, comprising:

10 a transaction-count decision step of deciding whether or not a transaction between a user which wants to purchase a commodity and an intermediary is for the first time;

15 a user merchandise ordering step in which said user orders the commodity by transmitting information about an electronic mall keeper desired by said user and information about a commodity to be purchased to said intermediary when it is decided that the transaction between said user and said intermediary is for the first time in the previous step;

20 an intermediary merchandise ordering step in which said intermediary orders the commodity by specifying itself as a merchandise shipping destination to an electronic mall keeper, based on the sets of information received in the previous step;

25 a credit card number notification step in which said intermediary notifies the credit card number of said

intermediary to said electronic mall keeper at the  
first transaction between the user and the  
intermediary;

an electronic mall merchandise shipping step in which  
5 said electronic mall keeper ships said commodity to  
said intermediary at the first step between said user  
and said intermediary;

an intermediary merchandise shipping step in which said  
intermediary ships said commodity to said user at the  
10 first step between said user and said intermediary;

a secret decryption key transmission step in which said  
user transmits said secret decryption key for the  
packet to said intermediary, in exchange of the  
commodity received in the previous step;

15 a cash and commission receiving step in which said  
intermediary acquires the credit card number by  
deciphering the cipher of said packet received in the  
previous step with the secret decryption key acquired  
in the previous step and then receives a cash and  
commission for said commodity with said credit card  
20 number;

25 a credit card number recording step in which said  
intermediary records corresponding information for  
the purpose of the second or later transaction to  
said user, said corresponding information being used

to uniquely identify said user with the credit card number of said user obtained in the previous step;

5 a second or later transaction user merchandise ordering step in which said user orders the commodity by transmitting information about a desired electronic mall keeper and information about a desired commodity to said intermediary when it is decided that a transaction between the user and the intermediary is the second time or later in the previous step;

10 a second or later transaction intermediary merchandise ordering step in which said intermediary orders said commodity by specifying said user as a merchandise shipping destination to said electronic mall keeper, based on the information received in the previous step;

15 a second or later transaction credit card number notification step in which said intermediary notifies the credit card number of said intermediary to said electronic mall keeper at the second or later transaction between the user and the intermediary;

20 a second and later transaction electronic mall keeper merchandise shipping step in which said electronic mall keeper ships said commodity to said user at the second or later transaction between said user and said intermediary;

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a merchandize arrival notification step in which said user, which has received said commodity in the previous step, notifies said intermediary of arrival of said commodity; and

5 a second or later transaction cash and commission receiving step in which said intermediary receives a cash and commission of said commodity with the credit card number of said user recorded in the previous step at the second or later transaction between said user and said intermediary.

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5 An intermediary information processing system which intermediates between a user and an electronic mall keeper in an on-line shopping system, comprising

15 a merchandise order receiver for receiving an order of a commodity from a user, said commodity order including information about a desired electronic mall keeper and information about a commodity to be purchased;

20 a packet receiver for receiving a packet transmitted by said user in the merchandise order by said merchandise order receiver;

25 a merchandise order transmitter for ordering said commodity by specifying said intermediary as a merchandise shipping destination to said electronic

mail keeper, based on information received by said merchandise order receiver;

a credit card number notifier for notifying said electronic mail keeper of the credit card number of said intermediary to pay for a merchandise order by said merchandise order transmitter;

5 a merchandize receiver for receiving the commodity shipped by said electronic mail keeper;

a merchandize shipper for shipping the commodity received by said merchandise receiver to said user;

10 a secret decryption key receiver for receiving a secret decryption key transmitted from said user, in exchange of reception of the commodity; and

a cash/commission receiver for acquiring a credit card number by deciphering the packet cipher with the secret decryption key received by said secret decryption key receiver and then receiving a cash and commission of the commodity with the credit card number.

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20 6 An intermediary information processing system which intermediates between a user and an electronic mail keeper in an on-line shopping system, comprising:

a transaction-count decider for deciding whether or not

25 a transaction to a user which wants to purchase a

commodity is for the first time;

a merchandise order receiver for receiving an order of  
a commodity from a user, said commodity order  
including information about a desired electronic mall  
keeper and information about a commodity to be  
purchased;

5 a packet receiver for receiving a packet transmitted by  
said user in the merchandise order by said  
merchandise order receiver when said transaction-  
count decider decides that the transaction to said  
user is for the first time;

10 a merchandise order transmitter for ordering said  
commodity to said electronic mall keeper, based on  
information received by said merchandise order  
receiver, by specifying said intermediary as a  
merchandise shipping destination when said  
transaction-count decider decides that the  
transaction to said user is for the first time or by  
specifying said user as a merchandise shipping  
destination when said transaction-count decider  
decides that the transaction to said user is not for  
the first time;

15 a credit card number notifier for notifying said  
electronic mall keeper of the credit card number of  
said intermediary to pay for a merchandise order by

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said merchandise order transmitter;  
a merchandize receiver for receiving the commodity  
shipped by said electronic mall keeper, with said  
intermediary as a merchandise shipping destination;  
5 a merchandize shipper for shipping the commodity  
received by said merchandise receiver to said user;  
a secret decryption key receiver for receiving a secret  
decryption key transmitted from said user, in  
exchange of reception of the commodity when said  
transaction-count decider decides that the  
10 transaction to said user is for the first time;  
an initial cash/commission receiver for acquiring a  
credit card number by deciphering the packet cipher  
with the secret decryption key received by said  
secret decryption key receiver and then receiving a  
15 cash and commission of the commodity with the credit  
card number;  
a credit card number recorder for recording  
corresponding information to pay for the second or  
later transaction to said user when said transaction-  
count decider decides that the transaction to said  
user is for the first time, said corresponding  
20 information being used to uniquely identify said user  
with the credit card number of said user acquired by  
said initial cash/commission receiver;

a merchandise arrival notification receiver for receiving notification of arrival of the commodity dispatched from said electronic mall keeper to said user when said transaction count decider decides that  
5 the transaction to said user is not for the first time; and

a second or later transaction cash/commission receiver for receiving a cash and commission for the commodity with the credit card number of said user recorded by  
10 said credit card number recorder when said transaction count decider decides that the transaction to said user is not for the first time.

7 A recording medium on which a program is recorded, wherein said program realizes an intermediary information processing system which intermediates between a user and an electronic mall keeper in an on-line shopping system as  
15 functions including:

a merchandise order receiver for receiving an order of  
20 a commodity from a user, said commodity order including information about a desired electronic mall keeper and information about a commodity to be purchased;

a packet receiver for receiving a packet transmitted by  
25 said user in the commodity order by said merchandize

order receiver;

a merchandize order transmitter for ordering said commodity by specifying said intermediary as a merchandise shipping destination to said electronic  
5 mail keeper, based on information received by said merchandise order receiver;

a credit card number notifier for notifying said electronic mail keeper of the credit card number of said intermediary to pay for the commodity order by  
10 said merchandise order transmitter;

a merchandize receiver for receiving the commodity shipped by said electronic mail keeper;

a merchandize shipper for shipping the commodity received by said merchandise receiver to said user which ordered said commodity;  
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a secret decryption key receiver for receiving said secret decryption key transmitted from said user, in exchange of reception of the commodity; and

a cash/commission receiver for acquiring a credit card  
20 number by deciphering the packet cipher with the secret decryption key received by said secret decryption key receiver and then receiving a cash and commission for the commodity with the credit card number.

8 A recording medium on which a program is recorded, wherein said program realizes an intermediary information processing system which intermediates between a user and an electronic mall keeper in an on-line shopping system as functions including:

5 a transaction-count decider for deciding whether or not a transaction to a user which wants to purchase a commodity is for the first time;

10 a merchandise order receiver for receiving an order of a commodity from a user, said commodity order including information about a desired electronic mall keeper and information about a commodity to be purchased;

15 a packet receiver for receiving a packet transmitted by said user in the merchandise order by said merchandize order receiver when said transaction-count decider decides that the transaction to said user is for the first time;

20 a merchandize order transmitter for ordering said commodity to said electronic mall keeper, based on information received by said merchandise order receiver, by specifying said intermediary as a merchandise shipping destination when said transaction-count decider decides that the transaction to said user is for the first time or by

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specifying said user as a merchandise shipping destination when said transaction-count decider decides that the transaction to said user is not for the first time;

5 a credit card number notifier for notifying said electronic mall keeper of the credit card number of said intermediary to pay for a merchandise order by said merchandise order transmitter;

a merchandise receiver for receiving the commodity shipped by said electronic mall keeper, with said intermediary as a merchandise shipping destination;

10 a merchandise shipper for shipping the commodity received by said merchandise receiver to said user which ordered said commodity;

15 a secret decryption key receiver for receiving said secret decryption key transmitted from said user, in exchange of reception of the commodity when said transaction-count decider decides that the transaction to said user is for the first time;

20 an initial cash/commission receiver for acquiring a credit card number by deciphering the packet cipher with the secret decryption key received by said secret decryption key receiver and then receiving a cash and commission of the commodity with the credit card number;

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a credit card number recorder for recording  
corresponding information for the purpose of the  
second or later transaction when said transaction-  
count decider decides that the transaction to said  
user is for the first time, said corresponding  
information being used to uniquely identify said user  
with the credit card number of said user acquired by  
said initial cash/commission receiver;

5 a merchandise arrival notification receiver for  
receiving notification of arrival of the commodity  
dispatched from said electronic mall keeper to said  
user when said transaction-count decider decides that  
the transaction to said user is not for the first  
time; and

10 a second or later transaction cash/commission receiver  
for receiving a cash and commission for the commodity  
with the credit card number of said user recorded by  
said credit card number recorder when said  
transaction-count decider decides that the  
transaction to said user is not for the first time.

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9 A recording medium on which a control program is stored,  
wherein said control program controls an information  
processing system of an intermediary which intermediates  
between a user and an electronic mall keeper in an on-line  
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shopping system, said control program making said information processing device execute the following steps of:

receiving a merchandise order including information

5 about a desired electronic mall keeper and information about an item to be purchased from a user;

receiving a packet transmitted from said user in said merchandise order;

10 ordering an item by specifying an intermediary as a merchandise shipping destination to said electronic mall keeper, based on the information about said merchandise order;

15 notifying said electronic mall keeper of a credit card number of said intermediary to pay for said merchandise order;

receiving a secret decryption key transmitted from said user, in exchange of the ordered item; and acquiring the credit card number by deciphering the packet cipher with the secret decryption key and then receiving a cash and commission of said item with the credit card number.

20 10 A recording medium on which a control program is stored, wherein said control program controls an

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information processing system of an intermediary which intermediates between a user and an electronic mall keeper in an on-line shopping system, said control program making said information processing device execute the following steps of:

- 5        deciding whether or not a transaction to a user which wants to purchase an item is for the first time;
- 10      receiving a merchandise order from a user, said merchandise order including information about a desired electronic mall keeper and information about an item to be purchased;
- 15      receiving a packet transmitted by said user in the merchandise order when it is decided that the transaction to said user is for the first time;
- 20      ordering said item to said electronic mall keeper, based on information about said received merchandise order, by specifying said intermediary as a merchandise shipping destination when it is decided that the transaction to said user is for the first time or by specifying said user as a merchandise shipping destination when it is decided that the transaction to said user is not for the first time;
- 25      notifying said electronic mall keeper of the credit card number of said intermediary to pay for said merchandise order;

receiving a secret decryption key transmitted from said user, in exchange of reception of the item when it is decided that the transaction to said user is for the first time;

5 acquiring a credit card number by deciphering the packet cipher with the received secret decryption key and then receiving a cash and commission for the item in the first transaction with the credit card number; recording corresponding information for the second or

10 later transaction to said user when it is decided that the transaction to said user is for the first time, said corresponding information being used to uniquely identify said user with the credit card number of said user acquired in said first transaction;

15 receiving notification of arrival of the item dispatched from said electronic mall keeper to said user when it is decided that the transaction to said user is not for the first time; and

20 receiving a cash and commission for the item with the recorded credit card number of said user when it is decided that the transaction to said user is not for the first time.